

Remarks

It is earnestly urged that the proposed amendment to claims 31, 39 and 49 removes from them the allegedly functional and redefines them in strictly structural terms.

Claims 30-61 have been rejected on grounds of alleged obviousness of their subject matter in view of Kaule et al., U.S. Patent 5,112,672 and Majumdar et al., U.S. Patent 6,025,119. It appears that the '119 patent qualifies neither *de facto* nor *de jure* as a valid reference in view of its filing date which is later than some of the priority dates claimed by applicant. Applicant respectfully denies that the subject matter disclosed by the '119 patent augments the teaching of the '672 in a manner which renders applicant's invention obvious to a person skilled in the art.

The '672 patent teaches a security element coated with a metal which, for the purpose of bridging any discontinuities in the metal, is associated with a second layer "that is also electrically conductive". The also electrically conductive layer consists of a varnish interspersed with electrically conductive pigments, e.g. soot particles.

It is plain that the '672 varnish with its interspersed soot particles which are visible to anyone, and especially a person intent on creating forgeries, looking at it, cannot satisfy the requirement of providing an inconspicuous security element.

Assuming, *arguendo*, one were to substitute the electrically conductive polymer of the '119 patent for the '672 varnish, one would still be faced with two electrically conductive layers. The Examiner's attention is respectfully directed to the fact that the electrically conductive polymer of the '119 patent is not to provide electrical conductivity for the purpose of measuring it as a function of the genuineness of a security document but, rather, as a means for dissipating static electricity from a light sensitive material, i.e. photographic film. The electrically conductive polymer may, among others, be 3,4-dialkoxy substituted polythiophene styrene sulfonate, which is not polyethylene dioxythiophene

polystyrene sulfonate used by applicant.

With respect, reason would have to be carried beyond tolerable limits to support an argument of obviousness of applicant's invention in light of the teachings of the '119 and '672 patents. While substitution of the '672 varnish by the '119 polymer may be within the skill of a person skilled in the art, there is nothing in either reference which would support the Examiner's allegation of the applicant's invention being obvious in light of the combined teachings. It would merely lead to two associated electrically conductive strips, one made of a metal, the other one incorporating carbon. Nothing could reasonably be inferred from the references which would suggest that one could do away with the metal strip and simply replace it by a conductive polymer strip.

In fact, nothing in the long history of paper money and concurrent efforts to render it secure from forgers by incorporating secret or at least complicated marks therein would lend support to the Examiner's allegation of obviousness of applicant's invention. Had it been obvious, the invention would already have been put to practice by others given the importance attached by mankind to subject matter with which the instant invention is most directly concerned, i.e. money.

It is earnestly urged that as amended and in view of applicant's remarks, the instant application is in condition for allowance which is courteously solicited.

Respectfully submitted,



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Version with markings to show changes made.

31. (Amended) The device of claim 30, wherein the sheet material comprises paper and wherein the pattern [of] comprises PEDT/PSS [is applied to the paper in the wet pulp state thereof] at least partially saturated therein.

39. (Amended) The device of claim 31, wherein the [PEDT/PSS] pattern is [partially or homogeneously] applied to at least a section of the paper.

49. (Amended) The device of claim 30, wherein the sheet material comprises a pattern made of printing ink and wherei the PEDT/PSS is [applied as] a component of [a] the printing ink.